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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/413,694 | 10/07/1999 | TAE-SAN PARK | 8836-115(IB8 | 2313 |

7590 08/26/2003
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EXAMINER

TIEU, BINH KIEN

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2643

DATE MAILED: 08/26/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/413,694

Applicant(s)

PARK, TAE-SAN

Examiner

BINH K. TIEU

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6, 12 and 13 is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, filed 07/14/2003, with respect to the rejection(s) of claim(s) 1-5 and 7-11 under previous cited prior art have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made as followings.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5 and 7-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Haneda et al. (U.S. Pat. #: 5,721,772).

Regarding claim 1, Haneda et al. ("Haneda") teaches an echo canceller, as shown in figure 5, comprising:

at least one adaptive filter (i.e., adaptive filters 75-1 to 75-N) for extracting at least one echo signal from speech signals (col.7, lines 36-65) and for calculating at least one power value of the speech signals (col.6, lines 23-66); and

at least one subtraction means for generating at least one error signal by subtracting the at least one echo signal from the speech signals (col.10, lines 27-35).

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at least one update control means for selectively updating at least one filter coefficient of the at least one adaptive filter in response to the at least one power value and the at least one error signal (see Abstract and col.9, lines 30-60).

Regarding claims 2-3 and 5, note col.9, lines 9, lines 41-60.

Regarding claim 4, see figure 10, note col.10, lines 35-50.

Regarding claim 7, Haneda teaches an apparatus such as an echo canceller for removing echo components from speech signals in a vocoder as shown in figure 5, the apparatus comprising:

at least one adaptive filter (i.e., adaptive filters 75-1 to 75-N) for extracting at least one echo signal from speech signals (col.7, lines 36-65) and for calculating at least one power value of the speech signals (col.6, lines 26-66);

a selection means (i.e.) adaptive operation control part 75) for generating at least one selective signal (i.e., adaptive condition signal (ADP) to all adaptive filters, except the j-th and k-th ones; col.9, lines 30-34);

at least one subtraction means for generating at least one error signal by subtracting the at least one echo signal from the speech signals (col.10, lines 27-35).

at least one update control means for updating at least one filter coefficient of the at least one adaptive filter when the at least one selective signal provided from the selective means is activated (see Abstract; col.8, lines 34-59 and col.9, lines 35-60).

Regarding claim 8, see figure 10, note col.10, lines 35-50.

Regarding claims 9-11, note col.9, lines 9, lines 41-60.

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Allowable Subject Matter

4. Claims 6 and 12-13 allowed.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh K. Tieu whose telephone number is (703) 305-3963 and E-mail address: BINH.TIEU@USPTO.GOV.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz, can be reached on (703) 305-4708 and **IF PAPER HAS BEEN MISSED FROM THIS OFFICIAL ACTION PACKAGE, PLEASE CALL Customer Service at (703) 306-0377 FOR THE SUBSTITUTIONS OR COPIES.**

Any response to this action should be mailed to:

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Washington, D.C. 20231

Or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Sixth Floor (Receptionist, tel. No. 703-305-4700).



**BINH TIEU
PRIMARY EXAMINER**

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Date: August 22, 2003